-----Original Message-----
From: Carnesale, Albert [mailto:acarnesale@ucla.edu]
Sent: Wednesday, June 23, 2010 12:42 PM
To: Frazier, Tim
Subject: FW: Advanced nano-nuclear as possible nuclear future alternative in US

Tim--
FYI.
Al

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From: Liviu Popa-Simil [mailto:liviu_popasimil@yahoo.com]
Sent: Wednesday, June 23, 2010 9:17 AM
To: Carnesale, Albert
Subject: Advanced nano-nuclear as possible nuclear future alternative in US

Dear Professor
Albert Carnesale

I am sending this e-mail directly to you in the hope of getting your attention on a strategic importance subject related to the future of nuclear power applications.

I am writing this letter and proposal to you because in my understanding that you are in position, as member of DOE's Blue Ribbon Commission, with making strategic technical recommendations and I have a proposal that I think you should be of interest in, for the US national program.

My proposal is a cooperative agreement with the US (DOE included) entities to create a new and very important nuclear program in which some of the US. Labs have the unique expertise and facilities to carry it out.

Please find attached, collaboration proposal letter and a proposal for developing advanced nuclear energy pioneering. On these subjects I have been working for more than 20 years and is in part an important reason that I am still in US and in Los Alamos.

The proposed nuclear approach is based on 4 main ideas, and developments, I have worked in the past, offering enhanced possibilities to use the nuclear energy.

I am looking to US as one of the best places in the world to approach this research in collaboration with me, allowing me to use my time to disclose more of the knowledge I have accumulated during my past work, and setting the ideas on a track of success with short time deliveries and strategic program. By this research US will lead the world in nuclear power research and applications for the next 100 years.

On the subject I have published over 50 peer-reviewed papers, showing in general terms what are the possibilities, the final goals and in part the path for achievement.

Looking in the NOAA data also, I realized that our civilization may enjoy another 30-40 years to prepare for a more harsh confrontation with the nature, some people calling it catastrophic climate change[1] - Energy, with emphasis nuclear energy is a key element to prevent the economic collapse, and degradation of the civilization possible down to the brink of extinction - please see the file "prediction: attached (It is in a compact form but I may come with more details if needed). That is why, in my opinion I say, that we have to accelerate the nuclear research as being able that by 2050-2060 to deliver the "generation 8" of nuclear reactors, that will drive the nuclear fission application to their technologic limits and buy us enough time to build fusion based energy, and more.

I also think, even my "prediction" is wrong and weather by miracle will favor our civilization, having the generation 8 of nuclear reactor deployed earlier than 2200 my not harm everyone, except the people hoping to extend "cattle style" in research life over 2060 by following the evolutionary little progress outlined in "Road map to generation 4" that in fact is killing any novel approach, driving out potential disruptive inventions and revolutionary progress that ones I am presenting you now, and forces to migrate somewhere else, that definitely will end-up in a big strategic disadvantage for US.

Please find attached, the Executive summary (annex 1) in print and on CD[2] containing some the papers and applications I have published, and some of them become known having more than few hundred citations...

I am also aware that even DOE might not have appropriately specialized[3] personnel able to understand the value/merit of the present proposal, it is also possible that this proposal may be being born too early for US, because it was developed by chance in Eastern Europe's distorted research environment that obliged us (me) to look in other ways to nuclear power. Now US seems to be addicted to steam reactors and oil, and the valuable document as "Road map to generation 4" is mainly used to reject funding for any new proposal that was not included under the most preferred reactors types, with the potential of bringing an important drawback to US nuclear progress.

Personally I have started working in these fields since 1978, first in Uranium enrichments by lasers applied in plasma jests, than looking at nuclear fuels from the accelerator applications perspective. There are very few people in US with the necessary background to understand and develop the technologies I am proposing. That is why I am writing to you, that using your overall view and deep understanding of strategic science and the fact that energy mastering is a very important piece of security and prosperity, to find reasonable that to recommend DOE to engage in this advanced research, by creating a new group (virtual group) with my collaboration and to deliver in few years several nuclear structures of success.

I am looking forward meeting you, talking in more detail how US, can get the leadership in this research, and after reliable energy is obtained an important part of US and Earth security is achieved, US maintaining or more exactly recovering it's leading position

among the Earth nations towards peace and prosperity promoting our values, we stand for and believe in.

With regards,

Liviu Popa-Simil, PhD., PMP,
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Phone: 661-8767; E-mail: lps@lavmllc.com

Annex 2 - CD content[4]

a) Letter

b) Proposal

c) About me

d) Resume

General Related Subjects

1. Popa-Simil L., Issues of Bussiness Plan of the Micro-Nano-Hetero Fuel based Nuclear reactor. MRS-Spring, 2008. Proceedings: p. 8.
2. Popa-Simil L., Ultra-Thin Layer Activation a Potential Tool for Nano-wear Measurements. MRS2008-Spring, 2008.
3. Popa-Simil L., The Nuclear Progress And The Non-Proliferation Policies. Proceedings of Global 2009, 2009. Paris, France, September 6-11, 2009(Paper 9136).
4. Popa-Simil L., The Nuclear Power Demand and Limitations for Deep Space Exploration. Space Nuclear Conference, 2007. Boston,MA(ANS).
5. Popa-Simil L., Complex Use of Nuclear Reactor by-Products in Space Applications. Proceedings of Nuclear Emerging Technologies for Space 2009, 2009. 1(208567): p. 9.
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7. Popa-Simil L., Novel Spallation Neutron Generator Based On Micro-Nano-Hetero Structures. Proceedings of Global 2009, 2009. Paris, France, September 6-11, 2009(Paper 9139).

Micro-Nano Hetero structures - Fission Products= Moving Entity

8. Popa-Simil L., Micro-Structured Nuclear Fuel and Novel Nuclear Reactor Concepts for Advanced Power Production. COE-INES-2, Yokohama, Japan, 2006. 1(8): p. 12.

9. Popa-Simil L., The advantages of the poisons free fuels. Proceedings of Space Nuclear Conference 2007, Boston, Massachusetts, June 24-28, 2007. 2060.

10. Popa-Simil L., Compact Fuel Based On Micro-Hetero Structure. Proceedings of Top Fuel 2009, 2009. Paris, France, September 6-11, 2009(Paper 2159).

11. Popa-Simil L., Advantages of "Cer-Liq" fuels in Power Production. JMRS-Proceddings, Chongquing, Chiina, June 9-12, 2008. F-Functional Ceramics: p. 1.

12. Popa-Simil L., Long Life Single Load Reactor Fuel. Proceedings of ICAPP '06 Reno, NV USA, June 4-8, 2006. 6206(CD).

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15. Popa-Simil L., Isotopic nuclear reactor with on-line separation. Proceedings of ICAPP 2007 Nice, France, May 13-18, 2007. 7103.

Nano-Hetero Structures for Direct Energy Conversion - Knock-ons electrons=Moving Entity

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17. Popa-Simil L., M.C., The Usage of Nano-Structure for Direct Harvesting of the Nuclear Particles Energy as Electricity. Materials Processing and Properties, 2008. 1(Nanomaterials -- Fabrication, Properties, and Applications): p. 69.

18. Popa-Simil L., Nano hetero nuclear fuel structure. Nanotech 2007, 2007. 1(5-CD): p. 344 - 347.

19. Popa-Simil L., Nano-Hetero Structure for direct energy conversion. Nanotech 2007, 2007. 4(4): p. 614 - 617.

20. Popa-Simil L., The Use of nano-Hetero Structures for Compact Isotiopic Batteries. Proceedings of The Nuclear and Emerging Technologies for Space, Atlanta GA, June 14-19, 2009. CD(208564): p. 10.

21. Popa-Simil L., Nuclear to Electricity Direct energy Conversion Solid State Fission Powered Battery. Proceedings of The Nuclear and Emerging Technologies for Space, Atlanta GA, June 14-19, 2009. CD(208566): p. 10.

22. Popa-Simil L., Supercapacitor like structure for micro-battery and radiation energy harvesting tile. Nanotech 2007, 2008. 2(3).

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31. Popa-Simil L., Power Generator Substrate. JMRS- Proceddings, Chongquing, Chiina, June 9-12, 2008. C- Electronic Packing materials(CD): p. 1.

32. Popa-Simil L., Hetero-Nano Ceramic Material for Direct Energy Conversion. JMRS- Proceddings, Chongquing, Chiina, June 9-12, 2008. F-Functional ceramics(CD): p. 1.

33. Popa-Simil L., Micro-nano-Hetero-Structures for Modern Nuclear Power Backing Systems. JMRS- Proceddings, Chongquing, Chiina, June 9-12, 2008. B-Sustainable energy Materials(CD): p. 1.

Nano-Clustered Transmutation Structures - Recoiled Nuclei=Moving Entity

34. Popa-Simil L., Nano-Clustered Recoil Based Transmutation Structure. Proceedings of Global 2009 Paris, France, September 6-11, 2009, 2009. CD(Paper 9141).

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40. Popa-Simil L., Nano-cluster Effect of Defect Super-rejection and Radiation Increased Endurance. MRS-Spring, 2008. web.

Nano-Structures Radiation Guiding - Neutrons and gamma =Moving Entity

41. Popa-Simil L., Nanotube Potential Future in Nuclear Power. MRS-Spring, 2008. web.

Other

42. Popa-Simil L., Advanced Nuclear Research related issues with impact in Economy, Security and Project Management. PMI-Communications, 2008. web.

43. L. Popa-Simil, "Road map to Generation 8 of Nuclear reactors"

44. Mars Energy -Book Ed. Springler- L.Popa-Simil /Chapters 7 and 9

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[1] I do not want to make a case from this, as I understand both the complexity of the problem vs. models inaccuracy, and the weakness of statistical data. Up to now this do not look good, and as a precaution, similar to loading the brake while crossing an agglomerated intersection we have to start preparedness and dynamically adjust policies and programs with the evolution. It will be no-harm done if __ will be prepared and not use, otherwise when the time will come we will as prepared as we are today in Gulf of Mexico. Please find it attached in a simple, executive summary like version.

[2] CD will be sent by mail upon request.

[3] Being specialized only in chemistry or material science it is not enough - it requires knowledge in nuclear structures and their criticality, nano-micro hetero-structures, meta-materials, interaction between particles and radiation with matter, MD, or MCQMD simulations and engineering. DOE has all of these in place but incorporated in many individuals, "world class-specialists".

[4] Will be delivered upon request at a specified mail address.